

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions of claims in the application.

1. (Canceled)

2. (Currently Amended) A semiconductor device comprising:

a semiconductor substrate having a first device region and a second device region;

a first transistor including a first gate electrode formed in the first device region with a first gate insulation film formed therebetween;

a second transistor forming a pair with the first transistor and including a second gate electrode formed in the second device region with a second gate insulation film formed therebetween;

a first metal layer formed over the first gate electrode with an insulation film formed therebetween, formed of a metal material having the property of occluding hydrogen and having a peripheral part positioned outer of a region where the first gate electrode and the first device region overlap each other; and

a second metal layer formed over the second gate electrode with the insulation film formed therebetween, formed of a metal material having the property of occluding hydrogen and having a peripheral part positioned outer of a region where the second gate electrode and the second device region overlap each other,

hydrogen termination of interfaces between the semiconductor substrate and the first and second gate insulation films by hydrogen annealing being suppressed ~~so that a fluctuation of a~~

~~dispersion of hydrogen termination ratio of the interfaces is not more than 35% of that without the first and the second metal layers when the first and second transistors are of N channel, and a dispersion of hydrogen termination ratio of the interfaces is not more than 85% of that without the first and the second metal layers when the first and second transistors are of P channel, and~~
the first metal layer and the second metal layer being electrically connected to each other.

3-4. (Canceled)

5. (Previously Presented) A semiconductor device according to claim 2, wherein the potential of the first metal layer or the second metal layer is fixed to a prescribed potential.

6. (Canceled)

7. (Previously Presented) A semiconductor device according to claim 2, wherein the potential of the first metal layer or the second metal layer is floating.

8. (Canceled)

9. (Previously Presented) A semiconductor device according to claim 2, wherein the ratio of a gap measured vertically between the semiconductor substrate and the first metal layer to a gap measured horizontally between an edge of the region where the first gate electrode and the

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Serial No. 10/781,811
Attorney Docket No. 042123

first device region overlap each other and the peripheral part of the metal layer is 0.32 or less than 0.32.

10. (Canceled)

11. (Previously Presented) A semiconductor device according to claim 2, wherein
the first metal layer or the second metal layer is formed of a layer film of a metal film
formed of the metal material having the property of occluding hydrogen, and
another metal film of a metal material which does not have the property of occluding
hydrogen.

12. (Canceled)

13. (Previously Presented) A semiconductor device according to claim 2, further
comprising an interconnection layer formed on the insulation film and formed of the same metal
film forming the first metal layer or the second metal layer.

14. (Currently Amended) A semiconductor device according to ~~claim 1~~ claim 2, wherein
the metal material is titanium, magnesium, an alloy containing titanium or an alloy containing
magnesium.

Amendment under 37 C.F.R. §1.116
Serial No. 10/781,811
Attorney Docket No. 042123

15. (Currently Amended) A semiconductor device according to ~~claim 1~~ claim 2, wherein the first transistor or the second transistor forms a part of a differential circuit or a part of current mirror circuit.

16-20. (Canceled)

21. (Previously Presented) A semiconductor device according to claim 9, wherein the ratio of a gap measured vertically between the semiconductor substrate and the second metal layer to a gap measured horizontally between an edge of the region where the second gate electrode and the second device region overlap each other and the peripheral part of the second metal layer is 0.32 or less than 0.32.